AutoDome Modular Camera System

VG4 Series Firmware Update Manual

BOSCH

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1 VG4 Firmware Updates via a TCP/IP Network

The IP AutoDome® incorporates a network video server in the IP module. The primary function of the server is to encode video and control data for transmission over a TCP/IP network. The IP AutoDome also allows an operator to update the AutoDome firmware via the TCP/IP network. This chapter applies to a VG4 100, 200, 300, or 500i Series AutoDome with an IP Communications Module.

Refer to the *AutoDome Modular Camera System Installation Manual*, the *100 Series User's Manual* and the *200, 300, 500i Series User's Manual* for specific instructions on configuring the IP AutoDome camera.

The latest VG4 service pack is available on the Bosch Security Systems Web site. To download the service pack from the Web, navigate to www.boschsecurity.us, click the CCTV link, then click Software under the Download Library heading. Then click on CCTV, and Cameras, PTZ to display the list of AutoDome models with Firmware updates.

CAUTION! If a service pack contains an upgrade to the IP firmware file (`Vip_x_app1.fw`), you must upgrade the IP firmware before you perform any other firmware update. (For example, before uploading `SCBootApp.g4i` or `SCMain.g4i`).

1.1 Upgrading the IP AutoDome

Use the following instructions to update the CPU or IP communications module firmware to an IP AutoDome over a TCP/IP network. To update firmware on a non-IP AutoDome see *Section 2 VG4 Firmware Updates via the CTFID*, page 11.

1.1.1 Minimum Requirements

The table below summarizes the information for the first full production versions of the VG4 AutoDome firmware.

Component	First Released Version	Release Date
`SCBootApp.g4i`	01.00.00.01	November 2006
`SCMain.g4i`	01.00.00.02	November 2006
`VCA_App.g4i`	01.00.00.01	April 2007
`VCA_boot.g4i`	00.06.00.00	April 2007
`vip_x_app1.fw`	2.00.00.58	November 2006

If the AutoDome receiving an upgrade contains firmware older than the files above, then the AutoDome is considered a pre-production model. Service packs may not properly update a pre-production model. If you do need to update a pre-production model, follow the special instructions in *Section 3.1 Pre-production Firmware Versions (All Models)*, page 27.

1.1.2 Navigate to the Firmware Update Page

1. Launch Internet Explorer and type the IP address for the AutoDome in the Address bar and click Go.
   Internet Explorer opens the Livepage view for the IP AutoDome.
2. Click the SETTINGS link, located at the top of the page.

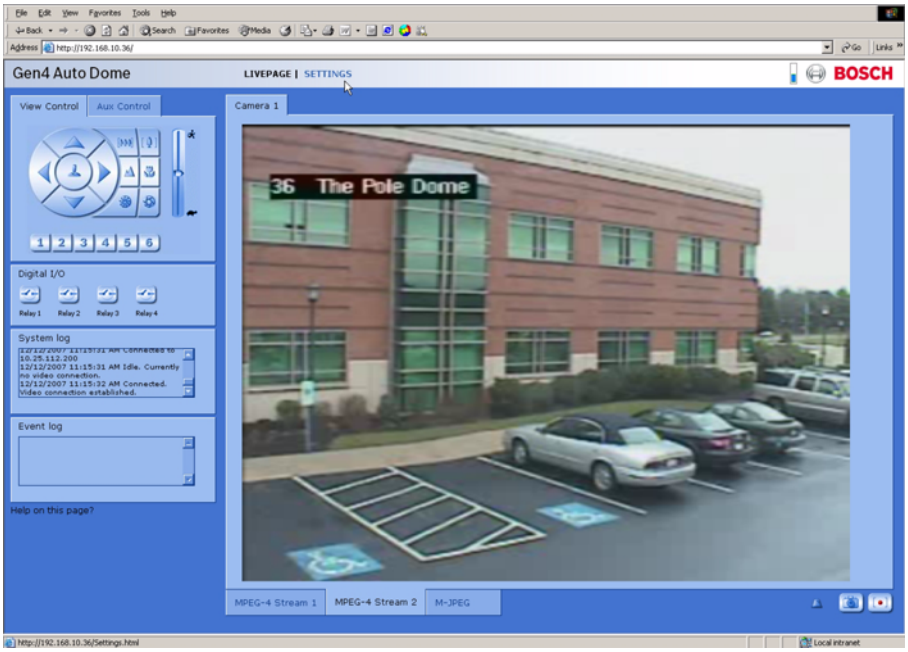


Figure 1.1 Select SETTINGS link

3. Click the Service settings link in the left pane.

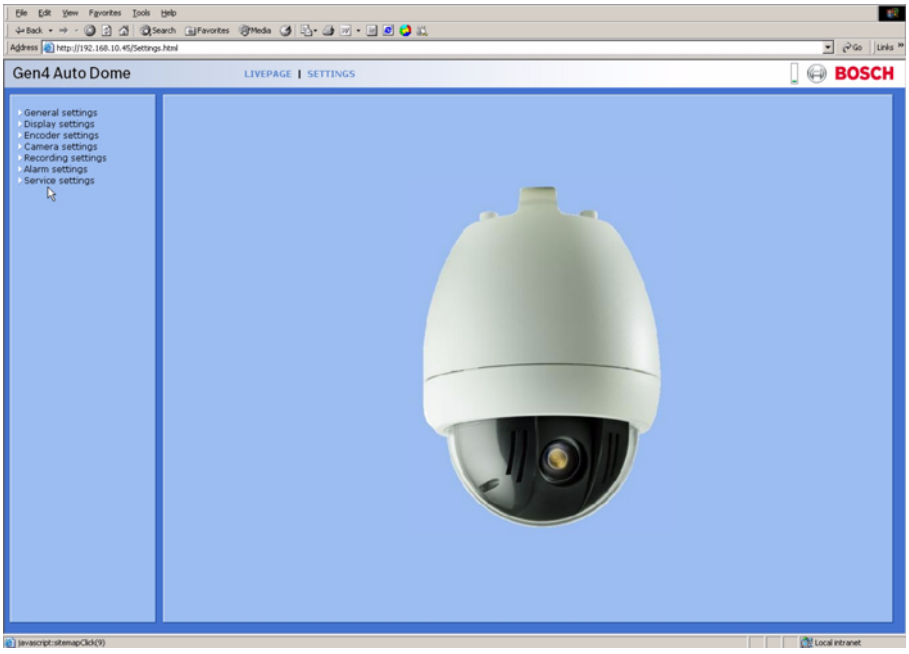


Figure 1.2 Select Service Settings link

4. Click the Maintenance link in the left pane.

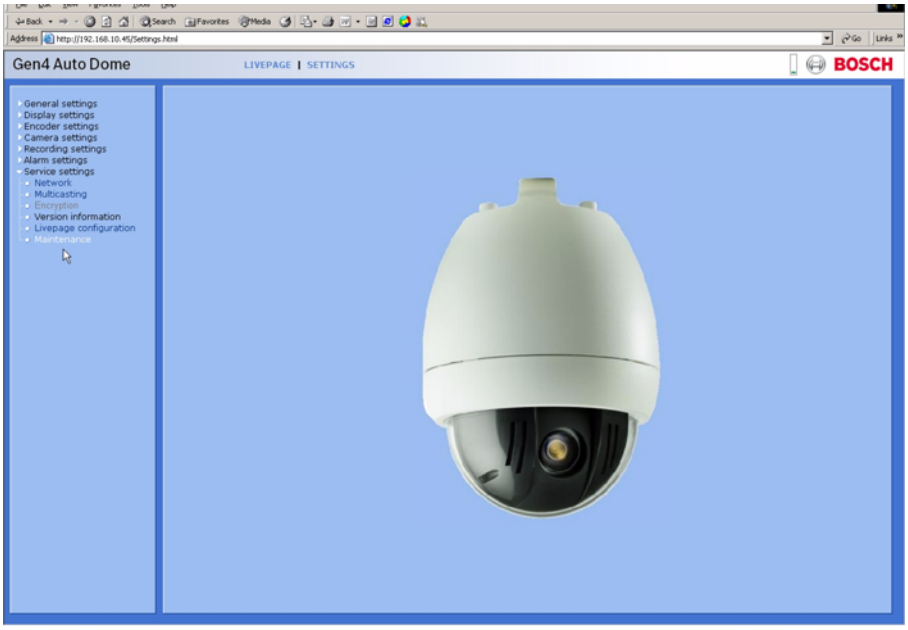


Figure 1.3 Service Settings Maintenance option

1.1.3 About VG4 AutoDome Firmware Updates

The latest VG4 service pack is available on the Bosch Security Systems Web site. To download a service pack from the Web, navigate to www.boschsecurity.us, click the CCTV link, then click Software under the Download Library heading. Select CCTV, then Camera, PTZ and choose the AutoDome model to choose the service pack you want to download.

A service pack update usually contains more than one file. The VG4 AutoDome system determines which files it requires, and automatically selects a service pack file if its version is greater than the version installed in the AutoDome.

NOTE: When uploading a service pack to an AutoDome you can choose to install the files which are automatically selected, or skip a file by deselecting it. If you choose to deselect a file that is a newer version than the one already installed, you will receive a warning that skipping a particular file may cause system instability.

1.1.4 Order to Upload Files

There is a specific order in which service pack files must be uploaded to the AutoDome. Before starting a firmware upgrade, note the current version of firmware of your AutoDome: Select the SETTINGS link, then click on Service Settings in the left pane, and select Version Information.

Use the following file order to upload firmware to the IP AutoDome:

1. **VIP_X:** You must upload the `vip_x_app1.fw` file first, if the firmware service pack contains an upgrade to the current IP firmware.

CAUTION! If a service pack contains an upgrade to the IP firmware file (`Vip_x_app1.fw`), you must upgrade the IP firmware before you perform any other firmware update. (For example, before uploading `SCBootApp.g4i` or `SCMain.g4i`).

2. **SC Boot**: You must upload the SC Boot files if the version contained in the service pack is greater than the installed version. The boot files are stored in a separate Boot directory. Always check for and install these files before before installing the sytem configuration SC Main files.
   Note: The SC Boot upload process erases the resident SC Main components, which completely disables the VG4 AutoDome. When you upload the SC Boot files the IP Web Server displays a message notifying the installer that the SC Main files must be reinstalled.
3. **SC Main:** If the service pack contains only the SC Main files, you can upload these files without a corresponding upload of the SC Boot file. However, if the service pack contains an SC Boot file upgrade, there can be incompatibility issues if the SC Boot is not uploaded before the SC Main file.
4. **Custom Language:** Certain Service Pack include an optional language file to upgrade the VG4 AutoDome on-screen display menus. This firmware upgrade is installed last.

1.1.5 Selecting and Uploading Firmware Files

To upload the service pack firmware, use the following procedure:

1. Click the Search button next to the Maintenance pane Firmware Upload field; then browse to the directory that contains the firmware files.

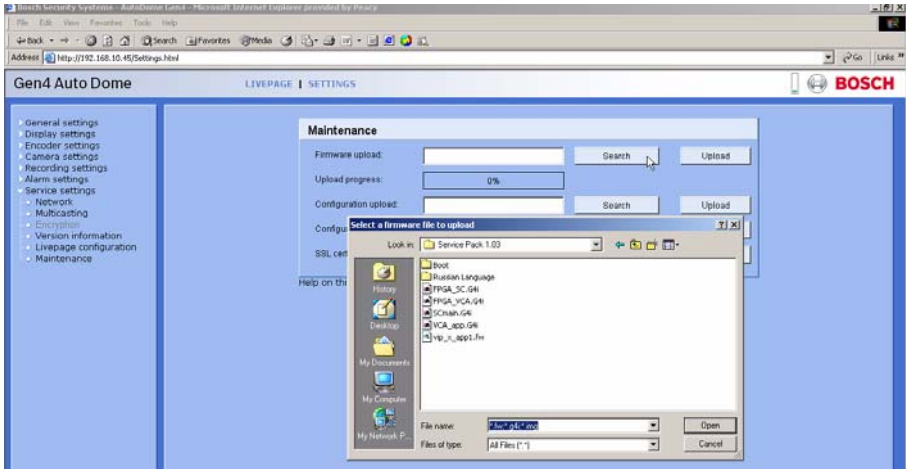


Figure 1.4 Choose firmware directory

2. Select the appropriate firmware update file from the table below and click Open.

NOTES:

– If a service pack contains an IP upgrade file (vip_x_appl.fw), you must upload this file first, before performing any other firmware update. (For example, before uploading the SCBoot.App.g4i or SCMain.g4i files.)
– If the service pack contains updated SC Boot files, they are stored in a separate Boot directory. If you navigate to a different directory, the bootloader system will not highlight the boot files for uploading, even though they are included in the overall service pack. Browse to and open the Boot directory, then install the SCBoot.App.g4i files before installing the SCMain.g4i files. See *Table 1.1* below.

File Name	AutoDome Series/Module	Function
Vip_x_app1.fw	IP Communications Module	Updates the IP Comms module firmware.
SCBootApp.g4i	200, 300, 500i	Updates the system controller boot firmware.
SCMain.g4i	200, 300, 500i	Updates the system controller firmware.
FPGA_SC.g4i	200, 300	Updates the FPGA chip.
FPGA_VCA.g4i	500i	Updates the FPGA chip.
VCA_boot.g4i	500i	Updates PTZ camera Video Content Analysis firmware. Install this file in addition to the SC_Boot.g4i file.
VCA_app.g4i	500i	Updates PTZ camera Video Content Analysis firmware. Install this file in addition to the SC_Main.g4i file.
*language*_Lang	200, 300, 500i	Uploads an additional language file for the VG4 on-screen display menus.
*.img	100 Series Fixed Camera	Updates fixed camera firmware.

Table 1.1 Firmware files and their function

CAUTION! If a service pack contains an upgrade to the IP firmware file (Vip_x_app1.fw), you must upgrade the IP firmware before you perform any other firmware update. (For example, before uploading SCBootApp.g4i or SCMain.g4i).

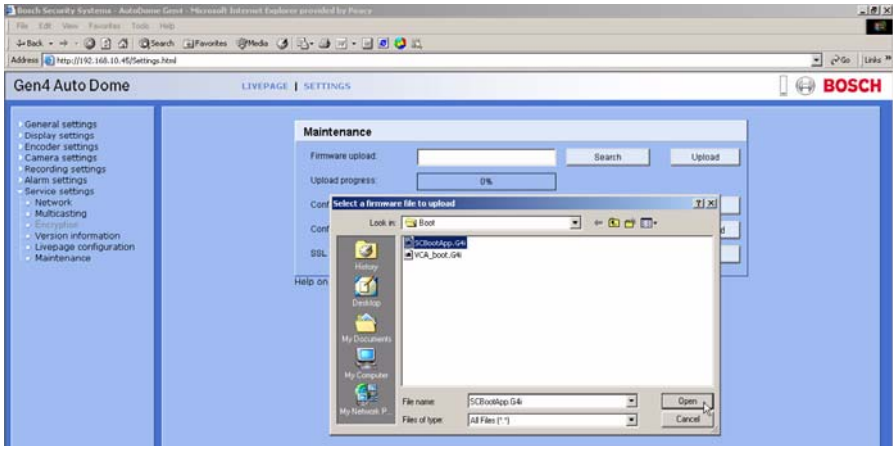


Figure 1.5 Select a Firmware file to upload

3. Click the Upload Firmware button.

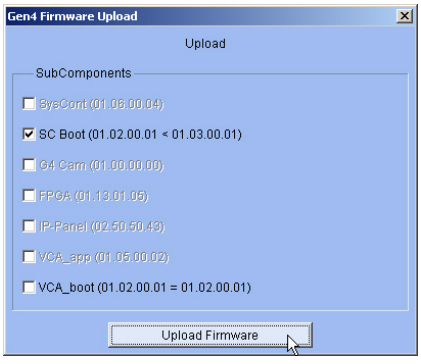


Figure 1.6 Upload Firmware

Note: Subcomponent files in dialogue box may differ depending on the model of AutoDome and firmware being uploaded.

A highlighted filename indicates that the service pack directory contains that file. However, Boot files are stored in a separate Boot directory. If you are not in the Boot directory, the dialogue box will not highlight the boot files even though they are included in the service pack.

In the parenthesis to the right of a filename, the dialog box displays the version of the file currently installed in an AutoDome and the version contained in the service pack separated by one of the following symbols:

Symbol	Description
=	The file currently installed is the same version as the file in the service pack
<	The file currently installed is an earlier version than the file in the service pack. The Update process automatically selects this file.
>	The file currently installed is a later version than the file in the service pack. If you choose to install this file, you receive a warning that the installation of this file may cause system instability.

CAUTION! Installing a file with a lower version number or skipping the installation of a file with a higher version number can cause instability within the system.

4. Click OK to the warning message to continue the firmware upload, or Cancel to stop the upload.

CAUTION! Updating the firmware erases all device settings. To save these settings, click the Configuration download button to save the current device settings and then upload this file after the completion of the firmware update.

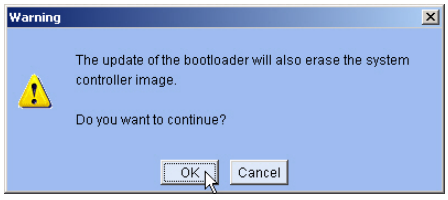


Figure 1.7 Warning message

The page displays a progress bar as the firmware is uploaded.

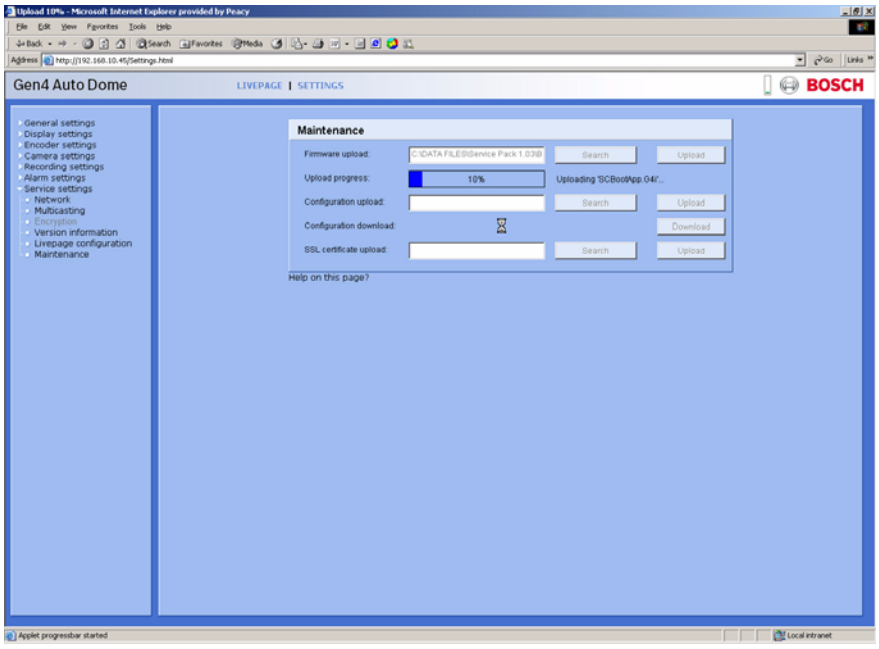


Figure 1.8 Upload progress bar

CAUTION! Do not perform any action, click any object in, or minimize the Internet Explorer browser window during the firmware upload.

Note: Once the progress bar reaches 100% the system opens the reset page. Allow the reset page to complete its action.

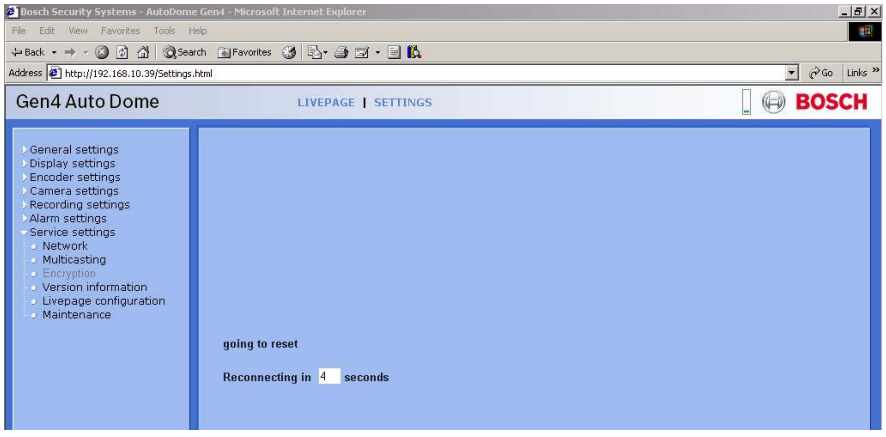


Figure 1.9 System Reset

5. Once the reset is complete, the following occurs depending on the firmware upgrade:
   - If only upgrading the IP Communications module firmware, the upgrade is complete.
   - If upgrading the AutoDome SCBoot firmware, after the AutoDome reinitializes and returns to the firmware upload mode, you will be prompted to upload the SCMain files (system configuration files) to complete the firmware update.

   Note: To continue to upgrade the SCMain configuration files, follow steps 2 through 5 above to select and upload the files to the AutoDome.

1.1.6 Alternate Language Option

Certain Service Packs, versions 1.03 and later, may include the option to upload additional languages to the VG4 AutoDome. The firmware file to add a new language is located in the Language folder. Before installing an additional language, you must first upgrade the SCBoot and the SysCont files (refer to *Section 1.1.5 Selecting and Uploading Firmware Files*, page 4). The procedure for uploading an additional language is the same as uploading the other files. To install an additional language to the AutoDome do the following:

1. From the IP AutoDome LIVEPAGE, select the SETTINGS link at the top of the window.
2. Click the Service Settings link in the left pane.
3. Click the Maintenance option to open the Maintenance window.
4. In the Maintenance window, click the firmware upload Search button, and browse to the Language folder in the service pack.
5. Select and open the Language folder.

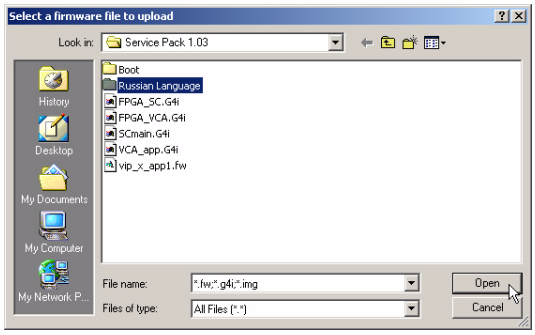


Figure 1.10 Language folder

6. Select the *language*_Lang_xx.xx.xx.xx.G4i file, and then click the Open button.

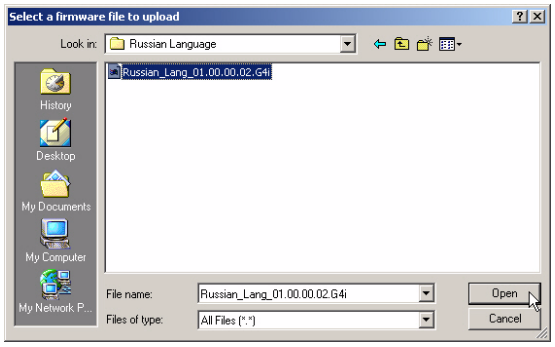


Figure 1.11 Select the Language file

7. Check the Language Table box under the subcomponents upload window.

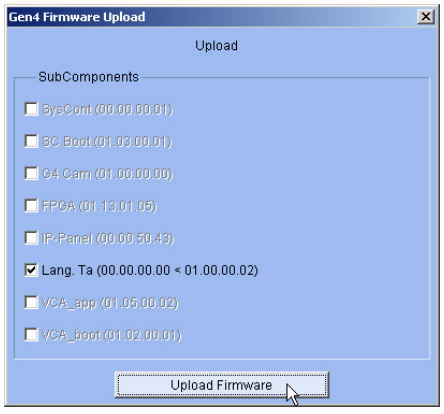


Figure 1.12 Check the Language Table box

8. Click the Upload Firmware button to start uploading the file. The browser displays a warning message.
9. Click OK to continue the firmware upload.

The page displays a progress bar. Once the progress bar reaches 100% the system opens the reset page. Allow the reset page to complete its action.

CAUTION! Do not perform any action, click any object in, or minimize the Internet Explorer browser window that is uploading the service pack files.

10. The AutoDome will restart and reconnect to the web browser after a successful upload. Refresh the window to restore the video to the AutoDome LIVEPAGE.

1.1.7 Changing the VG4 AutoDome OSD Language

There are two methods to change the VG4 AutoDome on-screen-display (OSD) language:

1. From the IP Autodome SETTINGS page:
   a. Click the Camera Settings link in the left pane.
   b. Click the Display link option.
   c. Click on Setting Group 1.
   d. Select the appropriate OSD language from the Language drop down menu in the Setting Group 1 pane on the right.
2. From the AutoDome OSD menu:
   a. Enter ON-46-ENTER from a control keyboard to open the Main window.
   b. From the Main window select Language menu.
   c. Then select the appropriate Language from the menu.

2 VG4 Firmware Updates via the CTFID

This chapter details the procedure to update the firmware files for a VG4 100, 200, or a 300 Series AutoDome® using the Configuration Tool for Imaging Devices (CTFID). The CTFID connects a computer to an AutoDome using a BNC to USB (Bilinx) connection or via a serial (RS232/RS485) connection.

Bilinx is a communication protocol that allows you to update the firmware for a VG4 Series over the video cable (coaxial or passive UTP). For a Bilinx connection, the CTFID is connected to an AutoDome using a BNC to USB converter (Bosch part VP-USB). For a serial connection, the AutoDome is connected to a computer through the DB9 Com port.

The version of the CTFID software must be version 3.04 or higher to interface with an AutoDome. (Visit www.boschsecurity.com for the latest version of the CTFID software). For further references and details, refer to the CTFID online help or *User's Manual* and to the *AutoDome Modular Camera System Installation Manual*.

The latest VG4 service pack is available on the Bosch Security Systems Web site. To download the service pack from the Web, navigate to www.boschsecurity.us, click the CCTV link, then click Software under the Download Library heading. Then click on CCTV, and Cameras, PTZ to display the list of AutoDome models with Firmware updates.

NOTICE! This upgrade method should only be used with a AutoDome using a standard non-IP Communications Module installed.

2.1 Upgrading the VG4 AutoDome

Use the following instructions to update the VG4 AutoDome using the CTFID software interface. To update an VG4 IP AutoDome see *Section 1 VG4 Firmware Updates via a TCP/IP Network*.

2.2 Hardware Connections

This section provides a brief description of the devices necessary to connect a PC with the CTFID software installed to a VG4 AutoDome. Refer to the *AutoDome Modular Camera System Installation Manual* and the *CTFID User's Manual* for detailed connection information.

2.2.1 Bilinx Connections

To create a Bilinx interface between a PC and a VG4 AutoDome you must have a Bosch VP-USB connector. The connector has a USB connector on one end and a female BNC on the other end. *Figure 2.1* illustrates the interface connections:

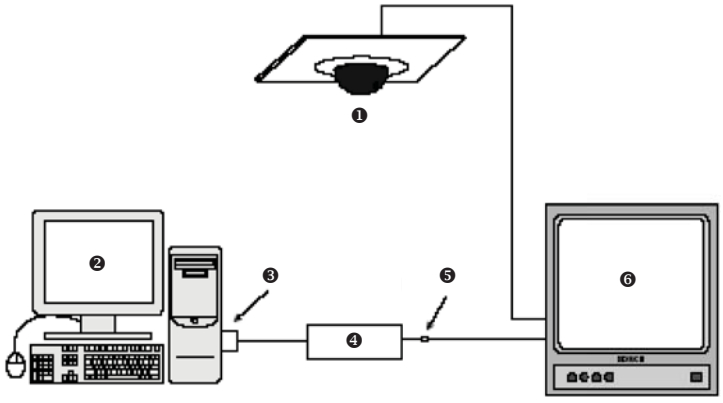


Figure 2.1 PC to VG4 AutoDome Connections

Reference	Description	Reference	Description
1	Typical AutoDome	4	VP-USB Connector
2	PC Running CTFID Software	5	Female BNC
3	USB Port	6	T-connector or monitor

Plug the USB end of the VP-USB into a USB port on the PC (the Windows Operating System configures the PC to recognize the VP-USB). Next, connect the female BNC end of the VP-USB to a male BNC connector that transmits data.

2.2.2 Serial Connections

The CTFID can also communicate with a VG4 AutoDome via an RS232 or an RS485 serial cable connected to a PC with a DB9 connection.

2.3 Launching the CTFID Software

You must install the CTFID software on the computer from which you will configure a camera. To install the CTFID software, refer to the *CTFID User's Manual* for instructions.
The method in which the CTFID software responds depends on the type of connection (Bilinx or serial) it detects. The CTFID initially checks for a Bilinx connection through a USB port. If the CTFID does not detect a Bilinx connection, the software prompts you to identify the type of serial connection.

2.3.1 Launching with a Bilinx Connection

If using a Bilinx connection, use the following instructions to launch the CTFID software:

1. Double-click the CTFID icon on the Windows Desktop. The CTFID software automatically checks for the Bilinx signal from the VG4 AutoDome. Once connected, the CTFID displays the Main Screen:

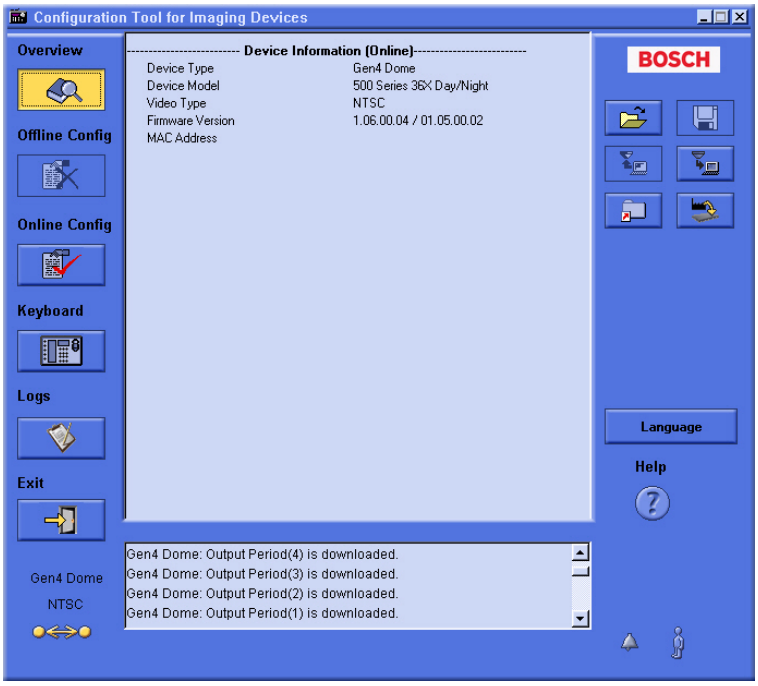


Figure 2.2 CTFID Main Screen

2. Proceed to *Section 2.4 About VG4 AutoDome Firmware Updates*, on page 16 .

2.3.2 Launching with a RS232/RS485 Serial Connection

If using a RS232/RS485 serial connection, use the following instructions to launch the CTFID software.

1. Double-click the CTFID icon on the Windows Desktop.
2. Click Cancel to select an alternate interface.

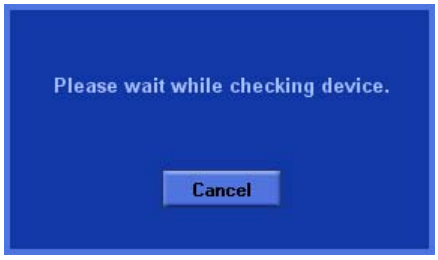


Figure 2.3 CTFID Detect Device Screen

3. Select the Select an alternate interface radio button and click Continue.

Alternate Interface Dialog
The device could not be detected over Bilinx or device detection was interrupted.
Select an alternate interface
Load Configuration
Continue
Cancel

Figure 2.4 Alternate Interface dialog box

4. Ensure that the Serial radio button is selected.
5. Select the COM Port that is connected to the DB9 connector.
6. Accept the default baud rate.

   Note: If unable to connect, make sure the Gen4 AutoBaud setting is turned on.

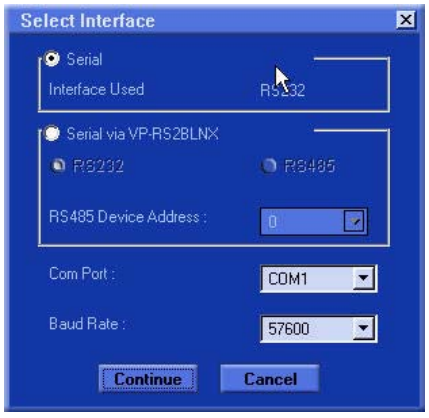


Figure 2.5 Select Interface dialog box

NOTICE! The VP-RS2BLNX device is not available in the United States.

7. Click Continue to start downloading the VG4 AutoDome configuration settings.

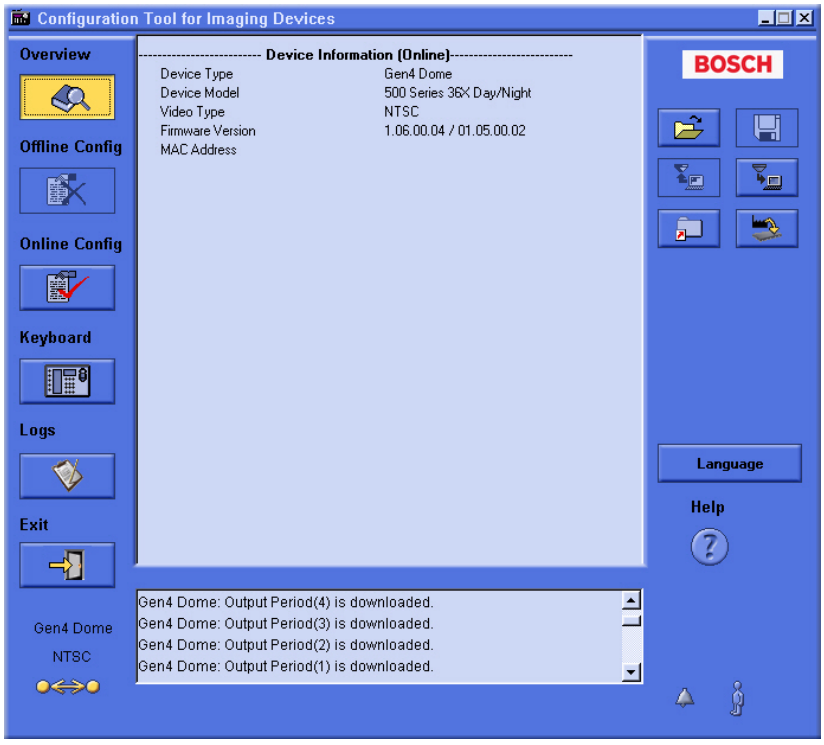


Figure 2.6 Downloading AutoDome Device Settings

8. Proceed to *Section 2.4 About VG4 AutoDome Firmware Updates*, on page 16 .
Note: The CTFID typically connects to an AutoDome in approximately 15 seconds, but it can continue to attempt a connection for up to one minute.

2.4 About VG4 AutoDome Firmware Updates

The latest VG4 AutoDome service pack is available on the Bosch Security Systems Web site. To download a service pack from the Web, navigate to www.boschsecurity.us, click the CCTV link, then click Software under the Download Library heading. Then select CCTV and Camera, PTZ and choose the AutoDome model to download the service pack to the PC media storage device of your choice.

A service pack update usually contains more than one file, and the system determines which files your AutoDome requires. The update process automatically selects a service pack file if its version is greater than the version of the file installed in the AutoDome.

NOTE: When uploading a service pack to a VG4 AutoDome you can choose to install the files which are automatically selected, or skip a file by deselecting it. If you choose to skip a file that is a newer version than the one already installed, you will receive a warning that skipping a particular file may cause system instability.

2.4.1 Minimum Requirements

The table below summarizes the information for the first full production versions of the VG4 AutoDome firmware.

Component	First Released Version	Release Date
SCBootApp.g4i	01.00.00.01	November 2006
SCmain.g4i	01.00.00.02	November 2006
VCA_app.g4i	01.00.00.01	April 2007
VCA_boot.g4i	00.06.00.00	April 2007

If the AutoDome receiving an upgrade contains firmware older than the files above, then the AutoDome is considered a pre-production model. Service packs may not properly update a pre-production model. If you do need to update a pre-production model, follow the special instructions in *Section 3.1 Pre-production Firmware Versions (All Models)*, on page 27 .

2.4.2 Order to Upload Files

There is a specific order in which service pack files must be uploaded to the AutoDome. Before starting a firmware upgrade, note the current version of firmware of your AutoDome in the CTFID main window.

Use the following file order to upload firmware to the AutoDome:

1. **SC Boot**: You must upload the SC Boot files if the version contained in the service pack is greater than the installed version. The boot files are stored in a separate Boot directory. Always check for and install these files before before installing the sytem configuration SC Main files.

   Note: The SC Boot upload process erases the resident SC Main components, which completely disables the VG4 AutoDome. When you upload the SC Boot files the CTFID displays a message notifying the installer that the SC Main files must be reinstalled.
2. **SC Main:** If the service pack contains only the SC Main files, then you can upload these files without a corresponding upload of the SC Boot files. However, if the service pack contains an SC Boot file upgrade, there can be incompatibility issues if the SC Boot is not upgraded before the SC Main file.
3. **FPGA:** If the service pack contains FPGA file updates, they are in the same directory as SC Main files and are automatically selected when uploading SC Main files.
4. **Language:** Certain service packs include an optional language upgrade file used to update the VG4 AutoDome on-screen display menus. This firmware upgrade is installed last.

2.4.3 Selecting and Uploading Firmware Files

To upload the service pack firmware, use the following procedure:

1. Download the service pack from the Bosch Security Systems Web site. See *Section 2.4 About VG4 AutoDome Firmware Updates*, on page 16
2. Click the Upload Firmware button on the right side of the CTFID Main Screen.

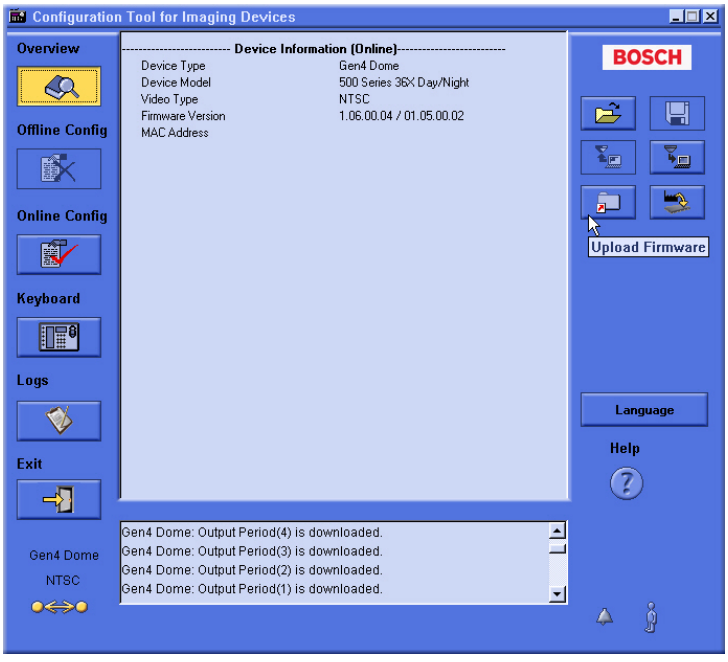


Figure 2.7 CTFID Main Screen - Firmware Upload Button

The CTFID opens the Choose Service Pack Folder dialog window.

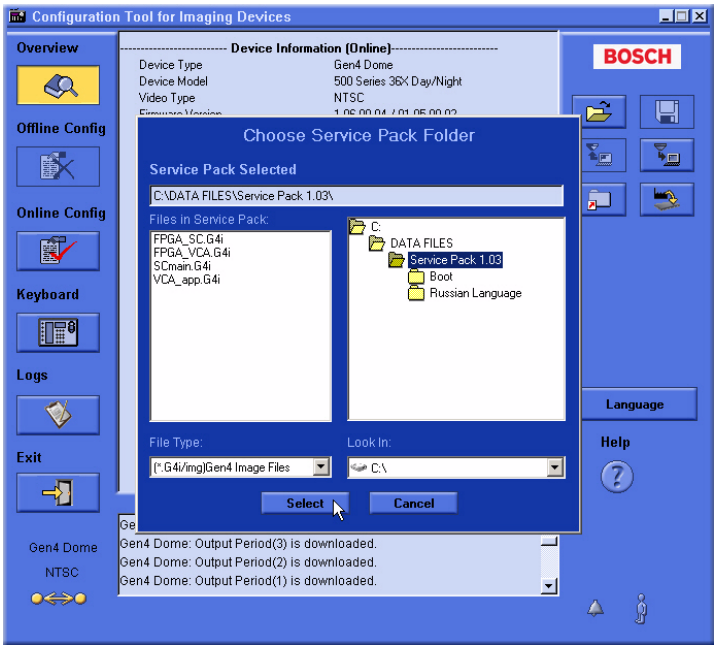


Figure 2.8 Choose a Service Pack

3. From the Look In drop-down list, navigate to the drive that contains the service pack.
4. Select the directory that contains the service pack files (`*.G4i` for 200, 300, and 500i Series AutoDomes; or `*.img` for a 100 Series AutoDome).

Note:

– If the service pack contains updated SC Boot files, you must update these files first. Boot files are stored in a separate Boot subdirectory. You must navigate to the Boot directory to update the Boot files. If you navigate to a different directory, the CTFID will not highlight the boot files for uploading, even though they are included in the overall service pack. See *Section 2.4.2 Order to Upload Files*, on page 16

2.4.4 Updating the SC Boot file

1. Double-click on the Boot subdirectory to check if the service pack contains an update for the SC Boot file.

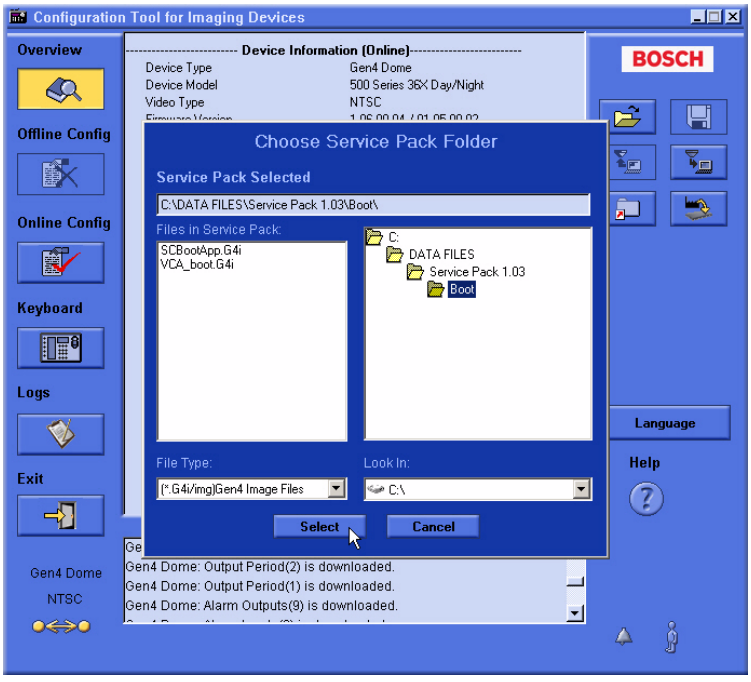


Figure 2.9 Service Pack File Selections

2. The CTFID reads the firmware file versions installed on the AutoDome, and compares it to the firmware file versions in the directory. The CTFID automatically selects the required files to update the AutoDome to the latest versions.
   The Select Firmware Upload dialog window displays the firmware subcomponents that the CTFID installs.

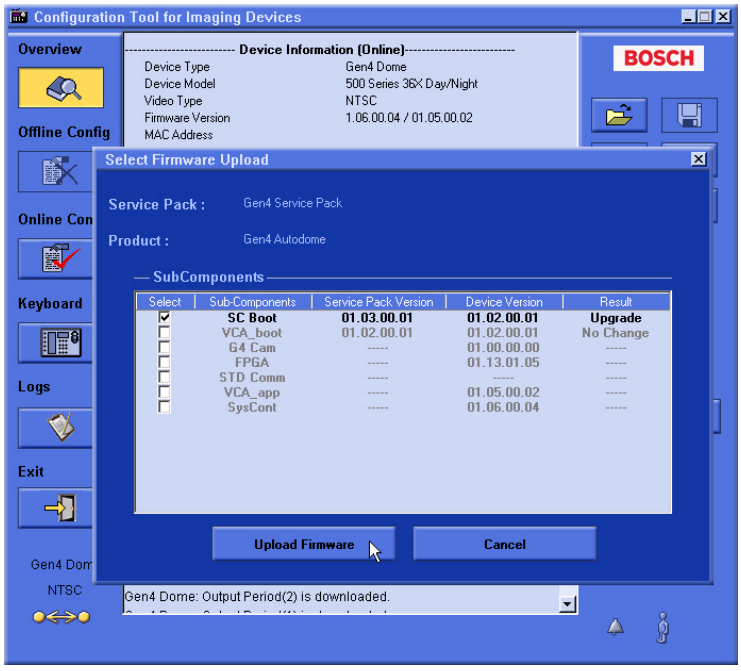


Figure 2.10 Service Pack subcomponents

A highlighted filename with a check mark in the box indicates that the service pack directory contains that file. The subcomponent list also displays the version of the file in the service pack and the version of the file currently installed in the VG4 AutoDome. The CTFID automatically selects a service pack file for uploading if its version is greater than the version of the file installed in the AutoDome.

Note: Boot files are stored in a separate Boot directory. If you are not in the Boot directory, the Firmware Upload window will not highlight the boot files even though they are included in the service pack.

3. Click the Upload Firmware button to accept the checked files.
4. Click Yes to the Warning message to start the update process.

CAUTION! Updating the firmware erases all device settings. To save these settings, click on the Configuration download button to save the current device settings and then upload this file after the completion of the firmware update.

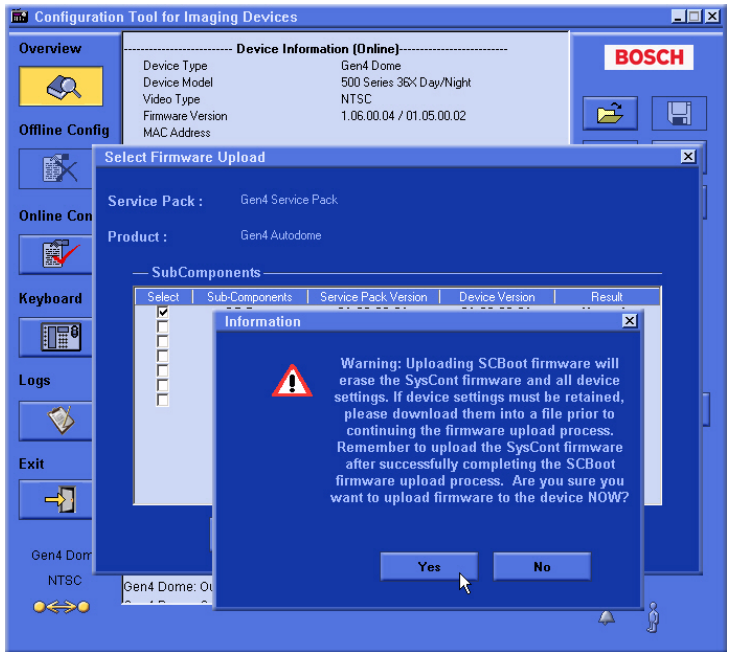


Figure 2.11 Firmware Update Warning

5. The AutoDome disconnects from the CTFID; then restarts into the BootLoader mode and reconnects to the CTFID.

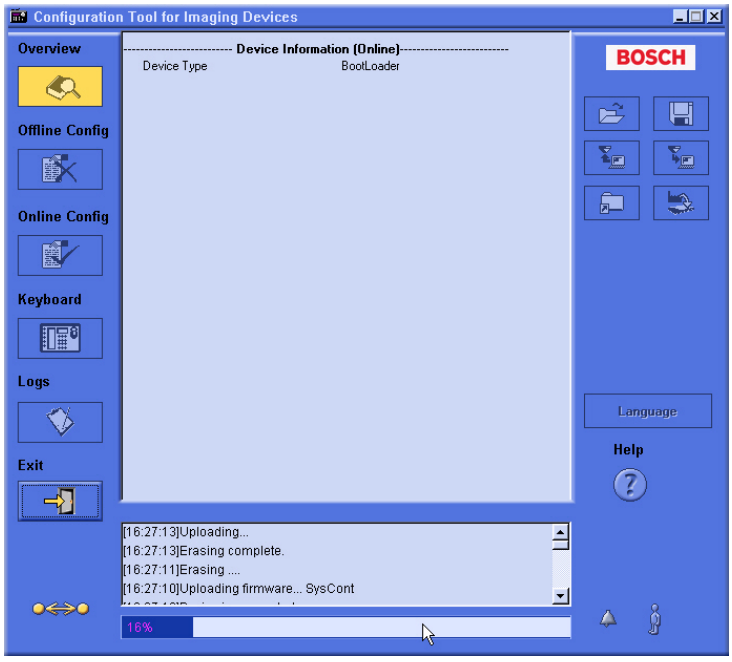


Figure 2.12 BootLoader Mode

6. Once the firmware SC Boot files have successfully uploaded, click OK to the message.

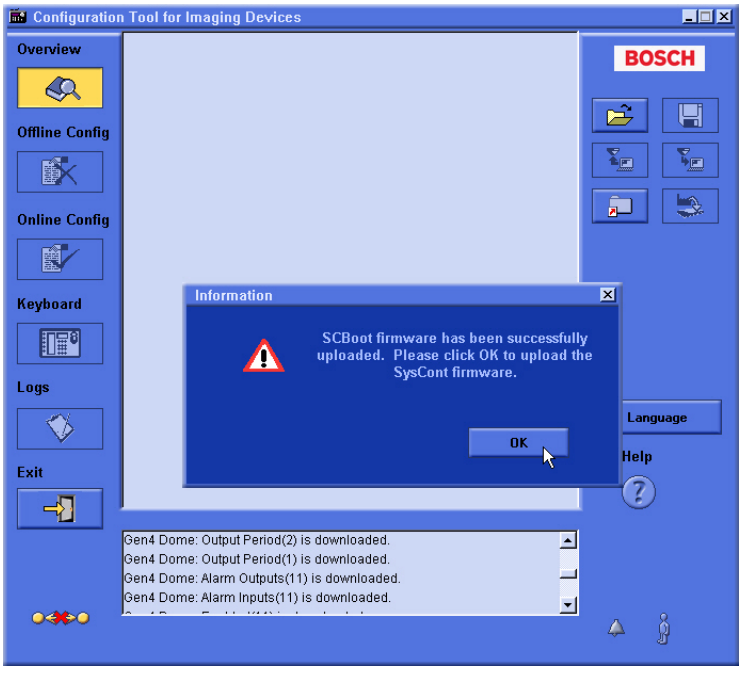


Figure 2.13 Successful SCBoot Upgrade

2.4.5 Updating the SC Main files

The SC Main file must be uploaded next.

1. Navigate to the Service Pack directory that contains the SC Main files and double-click on the folder to refresh the Files In Service Pack list.

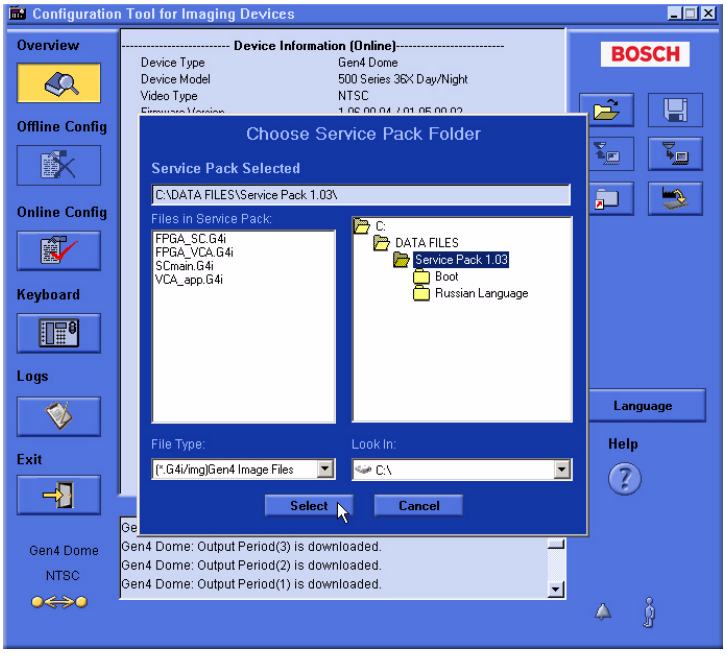


Figure 2.14 Choose Service Pack Folder

2. The CTFID reads the firmware file versions installed on the AutoDome, and compares it to the firmware file versions in the Service Pack directory. The CTFID automatically selects the required files to update the AutoDome to the latest versions.
3. The Select Firmware Upload window displays the firmware subcomponents that the CTFID installs.

4. Click the Firmware Upload button to accept the checked files. A warning message will be displayed.

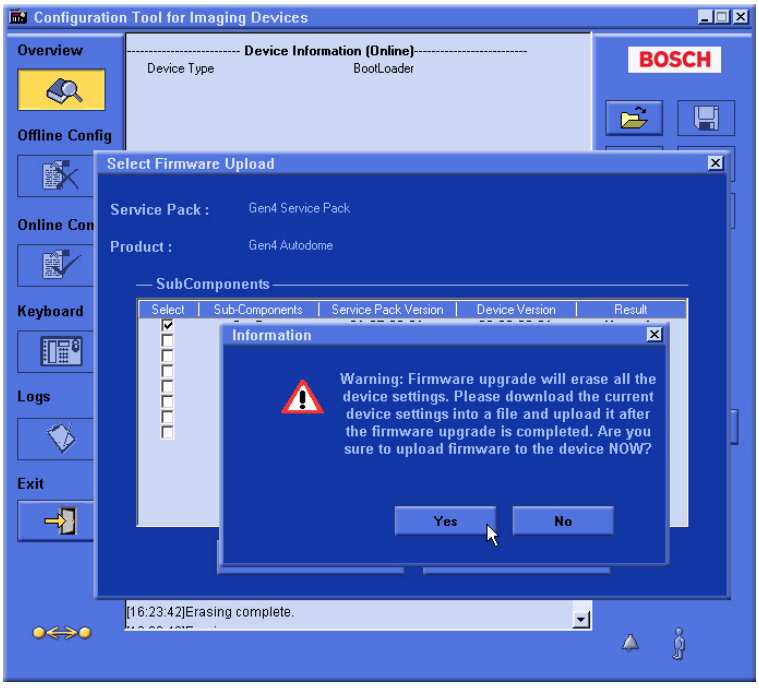


Figure 2.15 Firmware upgrade warning

5. Click “Yes” to start the file update process.

CAUTION! Updating the firmware erases all device settings. To save these settings, click on the Configuration download button to save the current device settings and then upload this file after the completion of the firmware update.

6. The AutoDome disconnects and proceeds through its homing process, and then restarts. During this time DO NOT CLICK ANYTHING! The AutoDome reconnects automatically to the CTFID.

7. Once the SC Main files have successfully uploaded, click OK to the message.

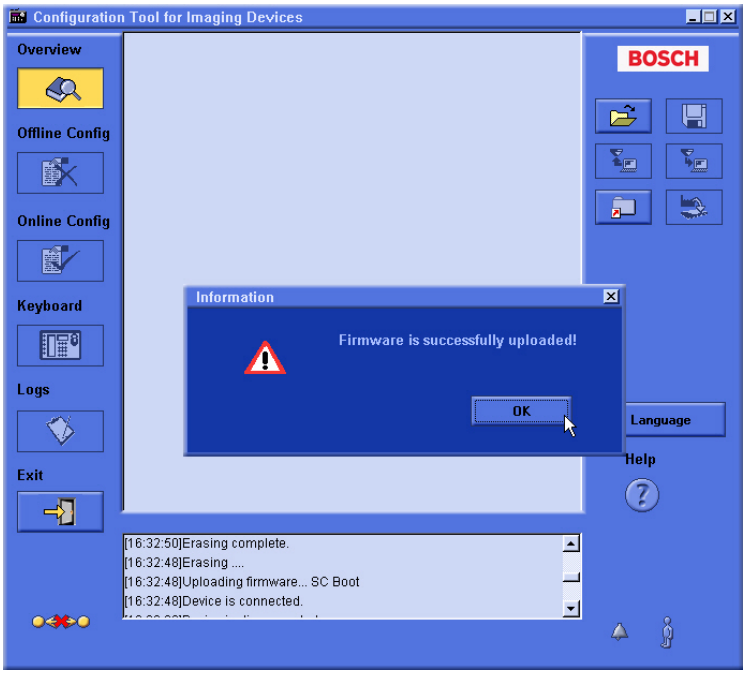


Figure 2.16 Successful upload message

NOTICE! When the upgrade operation is complete, the CTFID may display the Load Configuration dialog box. Disregard this dialog box; the CTFID removes the dialog box once the AutoDome reconnects to the CTFID.

8. Confirm that the CTFID Main Screen displays the new firmware version for the AutoDome.

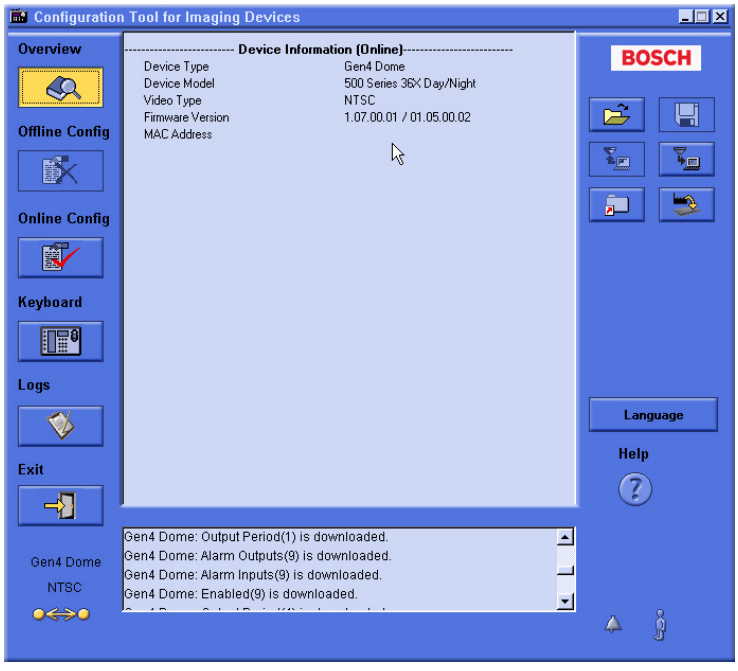


Figure 2.17 Confirm firmware version

2.4.6 Additional Language Option

Certain Service Packs, versions 1.03 and later, may include the option to upload the additional languages to the VG4 AutoDome. The firmware file to add a new language is located in the Language folder. Before installing an additional language, you must first upgrade the SCBoot and the SysCont files (refer to *Section 2.4.3 Selecting and Uploading Firmware Files*). The procedure for uploading an additional language is the same as uploading the other files.

To install an additional language to the AutoDome do the following:

1. From the CTFID Main Window, click the Firmware Upload button located on the lower left side of the right pane.
2. Navigate to the Language folder and double-click on the folder to refresh the files in the Choose Service Pack Folder pane on the left.
3. Click the Select button to display the sub-component file list.

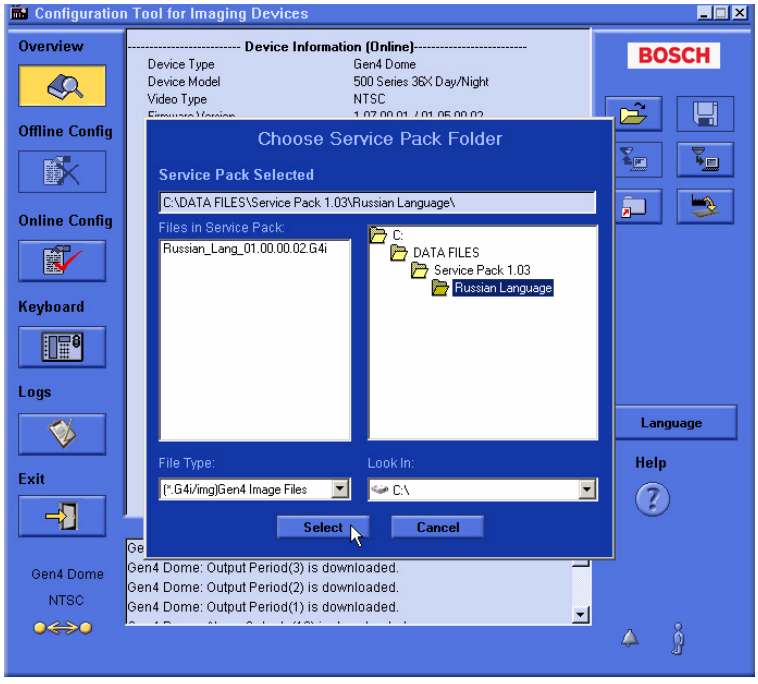


Figure 2.18 Select Language folder

4. Check the Language Table box in the Select Firmware Upload dialogue window.
   Note: You must check the Language Table box in the sub-components list to select the additional language file for upload.

5. Click the Upload Firmware button, and acknowledge the Warning message to start uploading the Language Table file.

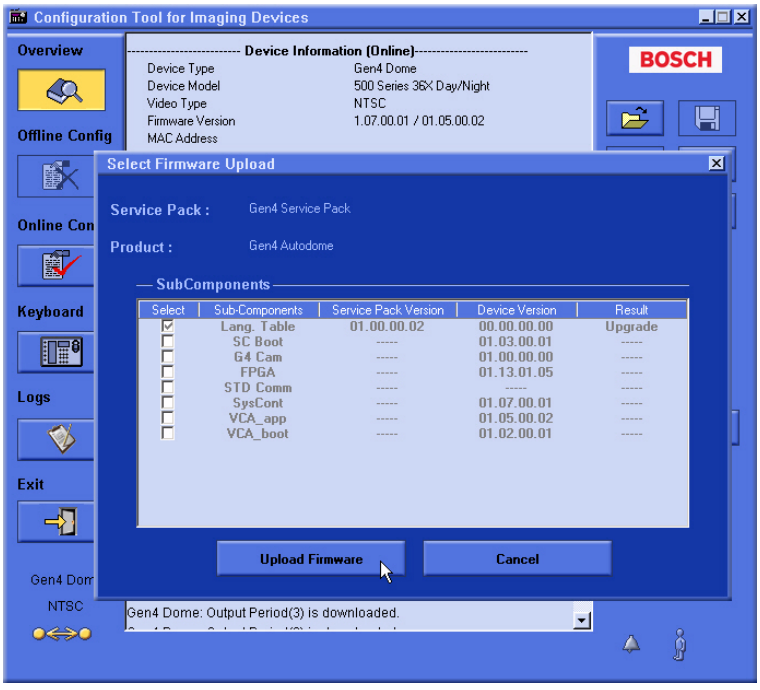


Figure 2.19 Upload Language table

6. The AutoDome disconnects and proceeds through its homing process, and then restarts. During this time DO NOT CLICK ANYTHING! The AutoDome reconnects automatically to the CTFID.

   Note: Do not click on any buttons while the AutoDome is uploading. The CTFID removes the Load Configuration window after the AutoDome reconnects.

7. Once the Language Table file has successfully uploaded, click OK to close the message.

2.4.7 Changing the VG4 AutoDome OSD Language

There are two methods to change the VG4 AutoDome on-screen-display (OSD) language:

1. From the CTFID Main window:
   a. Click the Online Config button on the left side of the window.
   b. Click on Display - Setting Group 1.
   c. Select the appropriate OSD language from the Language drop down menu.

   NOTE: The Language button on the Main CTFID window will only change the language to the CTFID user interface, and not change the OSD menu.

2. From the AutoDome OSD menu:
   a. Enter ON-46-ENTER from a control keyboard to open the Main window.
   b. From the Main window select Language menu.
   c. Select the appropriate Language from the menu.

3 Troubleshooting

This section provides information for issues that may arise during the upgrade process of a VG4 100, 200, 300, and a 500i Series AutoDome with or without the IP Communications module.

3.1 Pre-production Firmware Versions (All Models)

CAUTION! There is an increased risk when updating pre-production units. Possible hardware/ software combinations may cause the firmware upgrade to fail.

If you attempt to upgrade a pre-production unit, refer to the normal upgrade instructions EXCEPT that each upgrade MUST be done in the following order:

1. Upgrade the IP Communications module first, if applicable, with the `Vip_x_app1.fw` file.
2. Upgrade the boot files:
   - `SCBootApp.g4i`, for 200, 300, and 500i Series AutoDomes.
   - `VCA_boot.g4i`, for 500i Series AutoDomes.
3. Upgrade the System Controller using the `SCMain.G4i` file.
4. Upgrade the 500i Series AutoDomes, if applicable, using the `VCA_App.g4i` file.

3.2 VG4 AutoDome with an IP Communications Module

This section offers suggestions if a firmware upgrade fails in a 100, 200, 300, and 500i Series AutoDome that contains an IP Communications module.

3.2.1 Web Browser Issues

The browser displayed video correctly before the upgrade, but is no longer streams after completing the upgrade process. Do a manual refresh of the LivePage. If this does not work, check to ensure the following:

- **Microsoft® Internet Explorer® version**
  You must use Internet Explorer version 6.0 or higher with the 2.50 release level of the Bosch IP firmware. Internet Explorer version 5.0 worked with the Bosch IP firmware version 2.00.
- **Bosch MPEG ActiveX version**
  Compare the Bosch MPEG ActiveX version number, displayed in the Internet Explorer information bar, to the latest version available on the VG4 CD, in the Install directory, or at the Bosch Security Systems Web site (www.boschsecurity.us).
- **Java version**
  Microsoft Java is not longer supported. Install the latest Sun Java VM available on the VG4 CD, in the Tools directory, or at the Bosch Security Systems Web site (www.boschsecurity.us).
- **DirectX version**
  The version of DirectX must be 9.0c or higher. Install the latest version, which is available on the VG4 CD, in the Tools directory, or at the Bosch Security Systems Web site (www.boschsecurity.us).

3.2.2 IP Firmware Update Error

If you attempt to upgrade the IP firmware (using the `Vip_x_app1.fw` file) after you update the CPU firmware (using the `SCBootApp.g4i` or the `SCMain.g4i` file) the VG4 AutoDome may lock and you may receive the following error:

`C_Http_FwUpload::unknown error`

To correct this issue, use the following steps:

1. Connect to the AutoDome from a computer that contains the Configuration Tool for Imaging Devices (version 3.03 or higher) via an RS-232 or an RS-485 connector.
   Refer to *Section 2.3 Launching the CTFID Software*, page 12, for more information about an RS-232 connection, an RS-485 connection, and the CTFID tool.
2. Launch the CTFID tool.
3. Downgrade the version of the SCBootApp.g4i and the SCMain.g4i file to the release level prior to the upgrade.
4. Once the SCBootApp.g4i and the SCMain.g4i files are successfully downgraded, restart the IP firmware upgrade process, installing the IP firmware update file first.
   Refer to *Section 1 VG4 Firmware Updates via a TCP/IP Network*, page 1, for complete instructions on installing the IP firmware upgrade.

3.2.3 IP Firmware Upgrade Fails

If an error message appears stating that the IP firmware upgrade has failed, navigate to the following special URL:

`http://`*`IP_AutoDome_IP_Address`*`/upload.htm`

Where *`IP_AutoDome_IP_Address`* is the IP address for your IP AutoDome.

The browser then displays the following window:

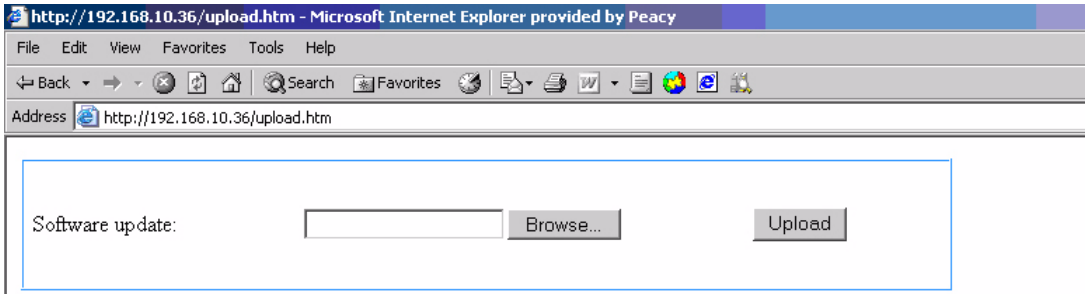


Figure 3.1 IP Firmware Upgrade URL

Click Browse and navigate to the IP directory. Select the IP firmware file and click OK. Then click Upload to attempt the IP firmware upload again. If the upgrade fails again, contact Bosch technical support for assistance.

3.3 Upgrading Firmware with the CTFID

These suggestions are applicable if upgrading using the CTFID software with either a Bilinx or a serial hardware connection.

3.3.1 CTFID does not Connect

Ensure that the latest version of CTFID has been installed from a CD or downloaded from the Bosch web site (www.boschsecurity.us).

3.3.2 BILINX

- Ensure that only one BILINX device is connected to the PC. For example, only one VP-USB may be connected to a PC at one time. In addition, disconnect the video output from the AutoDome from any other BILINX controller during a firmware upgrade.
- Confirm that all connections are correct and that the maximum recommended distance has not been exceeded.
- Confirm that there is a direct coax connection to the dome. BILINX cannot be transmitted through fiber without special fiber modules. BILINX also cannot be passed through analog distribution amplifiers, with the exception to the Bosch LTC 5231/90 and LTC 5234/90.
- Confirm that the coax signal is correctly terminated with only one 75 ohm load.

3.3.3 Serial (RS232 or RS485)

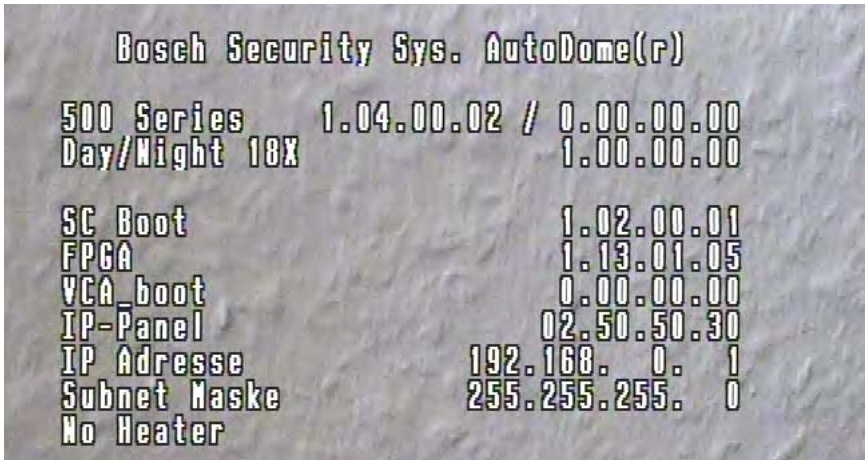
- Ensure that the CPU switch is set to the correct format. The factory default setting is RS485. Refer to the *AutoDome Modular Camera System Installation Manual* for more information.
- Confirm that the correct COM port was selected and that the cable is connected firmly to the DB9 connector.
- Ensure that all connections are correct and that the maximum recommended distance has not been exceeded.
- Ensure that the RS232 GROUND connection has been used.
- If using RS485, ensure that the termination resistor has been installed.
- Ensure the AutoDome AutoBaud is turned on.

3.3.4 Firmware Upgrade via CTFID Fails

Try to repeat the upgrade a second time. If the upgrade continues to fail, contact Bosch technical support.

3.4 Auto Tracker Does not Activate with ON 78 ENTER

If the Auto Tracker does not activate when you enter the ON 78 ENTER command, check the version of the VCA firmware. To determine the firmware versions installed on an AutoDome, issue the AUX ON 66 command twice. The AutoDome displays a screen similar to the following:



If the version of the VCA firmware is `0.00.00.00`, then the VCA firmware was not installed correctly.

To correct this issue, use the following steps:

1. Obtain the latest Service Pack from `www.boschsecurity.us`.
2. Connect to the AutoDome using either the CTFID (RS232, RS485, or Bilinx connection) or the web browser (IP AutoDome with Ethernet connection).
3. Re-install the VCA_boot.g4i and the VCA_App.g4i files from the service pack.
   Refer to *Section 2 VG4 Firmware Updates via the CTFID*, page 11, OR *Section 1 VG4 Firmware Updates via a TCP/IP Network*, page 1 for detailed steps to install the firmware updates).
4. Once the VCA_boot.g4i and the VCA_App.g4i files are successfully installed, the AutoDome will restart and the Auto Tracker will operate correctly.

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